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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,295	07/14/2003	Michael Lee	NKTZ 2 00061	6308

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EXAMINER

BLAU, STEPHEN LUTHER

ART UNIT	PAPER NUMBER
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3711

DATE MAILED: 05/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/619,295	Applicant(s) LEE, MICHAEL	
	Examiner Stephen L. Blau	Art Unit 3711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 14 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/14/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 19 states a width is in the vertical direction yet on page 4 line 22 width is defined as between the front and rear surfaces. There is insufficient antecedent basis for this limitation in the specification.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claims 1, 3, 5-8, 10, 14, and 17-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Rife (2003/0139225).

Rife discloses a muscle back portion interposed between a front surface and a rear surface and defining a cavity disposed therein (Figs. 14-15, (0052)), a muscle back surface proximal the sole and a blade surface proximal a top edge, a muscle back portion interposed between a muscle back surface and a front surface, a blade surface being substantially parallel to a front surface (Figs. 14-15, (0052)), a muscle back surface having an upper ledge that generally follows the contour of the top edge (Figs. 9, 12), a cavity being vertically spaced from a sole, a substantial portion of the extra mass portion is positioned below the cavity (Fig. 15), an elastomer at least partially filling a cavity (0052), a width of a cavity being slightly less than the width of a head (Fig. 15) and a muscle back portion covering at least half of the surface area of the rear surface (Fig. 14).

5. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Takeda or Yamada.

Takeda (Fig. 16) or Yamada (Fig. 2) discloses a muscle back portion interposed between a front surface and a rear surface and defining a cavity disposed therein, wherein a cavity is not visible from an exterior of a club (Fig. 16).

6. Claims 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Kusano.

Kusano discloses a muscle back iron having a substantially a flat back having an extra mass portion positioned toward the bottom of the head wherein the extra mass portion defines a cavity therein and a cavity entirely enclosed by the head (Fig. 1(b)).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rife (2003/0139225) in view of Takeda.

Rife lacks material in a cavity being of less specific gravity than material displaced by the cavity and an elastomer being polyurethane. Takeda discloses a cavity having a filling of polyurethane (Col. 5, Lns. 1-3) and a body being made of steel (0028). In view of the reference of Takeda it would have been obvious to modify the head of Rife to have an elastomer being made of polyurethane and a body being made of steel in order to utilize an elastomer filling material and body material used in the market place.

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9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rife (2003/0139225) in view of Official Notice and Sherwood.

Rife lacks a set of clubs with each club having a shaft and a cavity of a lower lofted club being larger in volume than a cavity of a higher lofted club.

The examiner takes Official Notice that it is well known to one skilled in the art have a club having a shaft in order to increasing the velocity of a head at impact.

Sherwood discloses a set of irons where a cavity of a lower lofted club being larger in volume than a cavity of a higher lofted (Col. 4, Lns. 14-18) in order to facilitate a golfer's control in hitting with long irons (Col. 2, Lns. 61-62). In view of the patent of Sherwood it would have been obvious to modify the club of Rife to be a set of clubs in order to utilize the advantages of the head of Rife for a set of heads. In view of the patent of Sherwood it would have been obvious to modify the set of clubs of Rife to have a cavity of a lower lofted club being larger in volume than a head and cavity of a higher lofted club in order to facilitate a golfer's control in hitting with long irons.

10. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rife (2003/0139225) in view of Official Notice and Sherwood as applied to claim 11 above, and further in view of Stites in view of Fujimura.

Rife lacks a cavity in the at least one lower lofted club being positioned more towards the toe of the head than the cavity in the at least one higher lofted club. Stites discloses having additional weight closer to a heel for a long iron than a short iron in the form of a cantilever mass (40) in order to vary the center of gravity (Col.4, Lns. 16-33).

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Fujimura discloses a method of having weight closer to a heel by moving a cavity closer to a toe of a head (Figs. 3-4) in order to vary the center of gravity (abstract). In view of the patent of Slites it would have been obvious to add weight closer to a heel for a long iron than compared to a short iron in order to vary the center of gravity for a set of clubs. In view of the patent of Fujimura it would have been obvious to modify the set of clubs of Rife to have the center of gravity varied for a set by having a cavity in the at least one lower lofted club being positioned more towards the toe of the head than the cavity in the at least one higher lofted club in order to utilize a cavity to vary weight for a set of clubs which do not have a cantilever mass to vary the weight.

11. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rife in view of Official Notice and Sherwood as applied to claim 11 above, and further in view of Takeda.

See paragraphs above for elements of structure previously rejected by Rife in view of Takeda.

12. Claims 14-16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Imamoto in view of Official Notice.

Imamoto discloses a muscle back iron having a substantially a flat back having an extra mass portion positioned toward the bottom of the head wherein the extra mass portion defines a cavity therein and a cavity entirely enclosed by the head (Fig. 1(b)) and a elastomer being disposed in the cavity (Ref. No. 30, (0038)).


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The examiner takes Official Notice that it is well known to one skilled in the art have a club having a shaft attached to a head in order to increasing the velocity of a head at impact.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steve Blau whose telephone number is (703) 308-2712. The examiner is available Monday through Friday from 8 a.m. to 4:30 p.m.. If the examiner is unavailable you can contact his supervisor Greg Vidovich whose telephone number is (703) 308-1513. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0858. (TC 3700 Official Fax 703-872-9306)

slb/ 18 May 2004


STEPHEN BLAU
PRIMARY EXAMINER